

REMARKS

Claims 1-17 and 35 are pending in application. Claims 18-34 have been withdrawn. Claims 1-17 and 35 have been rejected. Claims 1 and 9-16 have been amended. New Claim 36 has been introduced and is supported by the specification. No new matter has been added.

Priority

Applicants would like to thank the Examiner for acknowledging the receipt of the translated foreign application and the withdrawal of the rejections based on the Singh reference (U.S. 6,572,993).

Objection to the Claims

Claims 9-12 have been objected to under 37 CFR 1.75 as being of improper dependent form for failing to further limit the subject matter of a previous claim. Specifically, the Examiner believes the limitations set forth in the claims are already present in the parent claims. Applicants respectfully traverse the objection.

Claims 9-12 recite limitations not recited in the parent claims. Specifically, “wherein the response time of said reacting gas supply system is set below output assistance operation period” is not recited in the parent claims. As such, this is a limitation not in the parent claims.

Rejection under 35 USC § 112**Claims 1-17 and 35**

Claims 1-17 and 35 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner believes the claims include limitations as both an apparatus and a method of operating the apparatus.

Claims 1 and 35 are both directed to a fuel cell power supply as recited in the preambles of both claims. Both claims recite the elements that make up the fuel cell power supply of the present invention. Regarding the supply device of claims 1 and 35, it is not uncommon to use

functional language, that is, how an element operates, to describe such an element. Indeed, such functionality may be a distinguishing feature of an element such as a controller.

Accordingly, applicants do not believe that the claims 1 and 25 are indefinite. Claims 2-17 depend from claim 1, they incorporate each and every element of claim 1. As such, Applicants also do not believe claims 2-17 are indefinite. Thus applicant request the rejection to claim 1-17 and 35 under 35 U.S.C. § 112, second paragraph, be withdrawn and the claims passed to issue.

Claims 13-16

Claims 13-16 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner is unclear as how the capacitance of the double layer capacitor is determined by the response time of the reacting gas supply system.

Claims 13-16 have been amended to clarify the subject matter being claimed. Amended claims 13-16 now recite that the electric double layer capacitor has a value in which the response time of said reacting gas supply system is set below an output assistance operation period by said output assistance operation period of said electric double layer capacitor.

Rejection under 35 USC § 101

Claims 1-17 and 35 have been rejected under 35 U.S.C. § 101 as being directed to non-statutory matter. Specifically, the Examiner believes the claims embrace two different statutory classes of invention namely an apparatus and a method of operating the apparatus. Applicants respectfully traverse the rejection.

As stated above in regard to the 35 U.S.C. § 112 rejection, claims 1 and 35 are both directed to a fuel cell power supply as recited in the preambles of both claims. Both claims recite the elements that make up the fuel cell power supply of the present invention. Regarding the supply device of claims 1 and 35, it is not uncommon to use functional language, that is, how an element operates, to describe such an element. Indeed, such functionality may be a distinguishing feature of an element such as a controller.

Accordingly, applicants do not believe that the claims 1 and 25 embrace two different statutory classes of invention. Claims 2-17 depend from claim 1, they incorporate each and every element of claim 1. As such, Applicants also so not believe claims 2-17 embrace two different statutory classes of invention. Thus applicant request the rejection to claim 1-17 and 35 under 35 U.S.C. § 101 be withdrawn and the claims passed to issue.

Rejection under 35 USC § 103

Claims 1-17 and 35 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Kimura et al. (5,964,309) in view of JP 08-214452 (Takeshi). Applicants respectfully traverse the rejection.

In addition to the lack of teachings regarding capacitors noted by the Examiner, Applicants submit that the gas shortage state addressed by Kimura is different from the gas shortage state addressed by the fuel cell power supply unit of claims 1 and 35. In Kimura, when charging is required, the fuel cell supplies not only the voltage required for the load current, but also the voltage required for charging. The fuel cell of Kimura supplies more voltage than the voltage required just for the load current, and if the fuel cell is supplied with the reacting gas just in the amount required for the load current, the system of Kimura would experience a shortage of the reacting gas. Thus, the system of Kimura is adapted to supply the reacting gas for outputting the voltage for required charging as well as the reacting gas for outputting the voltage for the load current. As such, Kimura's system prevents a gas shortage state during charging after the variation in the load.

In contrast, the fuel cell power supply unit of claims 1 and 35 of the present application prevents a gas shortage state upon the variation in the load, not a gas shortage state during charging after the variation of the load. Thus, Kimura is directed to solving a different problem from the present invention and as such fails to teach or suggest the subject matter of the present application. The addition of Takeshi fails to cure this deficiency.

Takeshi does not teach or suggest each and every element of claims 1 and 25. In Takeshi, the internal resistance is used to determine whether the electric double layer capacitor is

in the degradation acceleration state. Takeshi does not teach or suggest using the internal resistance for determining the supply of an excess supply amount of a reacting gas. As such Takeshi fails to teach or suggest each and every element of claims 1 and 35.

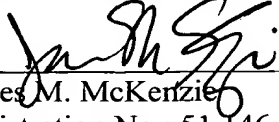
Thus for the reasons set forth above, neither Kimura nor Takeshi alone or in combination teach or suggest each and every element of claims 1 and 35. Claims 2-17 depend from claim 1 and as such incorporate each and every element of claim 1. Therefore claims 2-27 are also not taught or disclosed by Kimura or Takeshi. Accordingly, Applicant request the withdrawal of the rejection to claims 1-17 and 35 under 35 USC § 103 and that claims 1-17 and 35 be passed to issue.

CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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